

# Dreams, Longings, Memories – Visualising the Dimension of Projected Spaces in Fiction

Barbara Piatti, Anne-Kathrin Reuschel, Lorenz Hurni

Institute of Cartography and Geoinformation, ETH Zurich, Switzerland

**Abstract.** In fictional, narrated worlds (literature, movies, graphic novels etc.) so-called projected spaces can play an important role. They have different qualities than settings, since they are created and called up via the imagination of the protagonists: Heros and heroines in novels are dreaming of, longing for or remembering places, both existing and imaginary ones. Projected spaces are introduced here as part of a genuine geography of fiction and hence subject to the currently dynamically developing field of mapping literature (also summarised under the term of “literary cartography”). The paper delivers first examples and some basic theoretical thoughts, before it moves on to the presentation of a set of newly designed map symbols for this specific spatial category. What can cartography add to a deeper understanding of projected spaces? The paper concludes with an outlook to a future research agenda.

**Keywords:** fictional geography, cartographic visualisation, projected spaces, dreams

## 1. Introduction

This paper builds on research carried out within the interdisciplinary project “A Literary Atlas of Europe“ ([www.literaturatlas.eu](http://www.literaturatlas.eu)) – in a close collaboration between scholars from literary studies and cartographers. The literary atlas deals with the specific geography of fiction by mapping the spatial dimension of novels, novellas, short stories etc. through a newly designed set of symbols (see Reuschel & Hurni 2011, Bär & Hurni 2011). It aims at visibly rendering the complex overlays of real and fictional geographies (see Piatti 2012).

During the initial analyses of literary texts the space of fiction is broken down into 5 main categories: Settings, zones of action, projected spaces, topographical markers, paths/routes of character. Without any doubt projected spaces are one of the most fascinating categories. The term, coined

within the frame of our project, means that these are spaces a fictional character thinks of, remembers, is longing for or imagines, without being physically present in (compared to settings/zones of action where the actual plot takes place). Those spaces follow a specific function and add extra layers of meaning to the geography of a narrated world. Research about projected places is only in its early stages and mapping could be one of the trails to take to get a few steps closer to a full understanding of this part of fictional geographies.

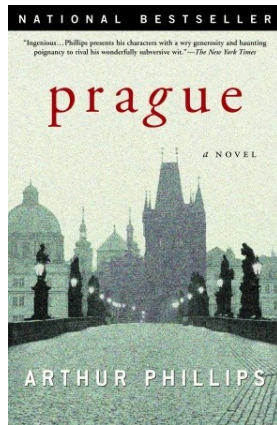
## 2. Projected Spaces – Examples and Definitions

### 2.1. Projected spaces in literature

One of the most impressive examples is Gustave Flaubert's scandalous novel of an adultery, "*Emma Bovary*" (1856). There, the beautiful Emma lives with her soon detested husband, a boring doctor, in a small, provincial village somewhere in the Normandy. Feeling isolated, with nothing to catch her senses, Emma dreams frequently of Paris. Her tool to do so is a city map. When she moves her finger along the streets and stops on the squares and places, she literally plunges in the vibrant city. She sees the gaz lanterns, the elegantly dressed crowd in front of the opera and theatre buildings, hears the carriages, smells perfumes. The city map becomes alive, three-dimensional – it transports Emma from her cold and damp house somewhere in the province into the heart of a world city. Anton Tschechow's famous play "*Three sisters*" (1901) follows exactly the same structure: While the entire plot is situated in a manor house, in a peripheral garrison town, the three young women are longing for Moscow, for the pleasures and seductions in the distance.

In Max Frisch's "*Montauk*" (1975) the two lovers (about whom the story tells) spend a weekend on Long Island. But somehow this place gets more and more dissolved by memories and backlashes of the narrating I. He thinks of passed love affairs and marriages in Switzerland (Zurich and Ticino), Berlin, Rome and Greece. Long Island, the actual setting, is the place that features the least defined structures and gets blurred.

A fine example for the contemporary production is Arthur Phillips' novel "*Prague*" (2002): not a single sequence of action is set in Prague, as the toponymic title and the book cover of the first edition might very well indicate or even promise (see *Figure 1*). As a matter of fact, all of the main characters live in the Budapest of the Post-"Wende" era and remain there for the duration of the novel, while all their thoughts are quite hopelessly directed to the arcane and ghostly Prague, the Golden City.



**Figure 1.** Book jacket of Arthur Phillips' novel "Prague", showing Charles Bridge in the dawn.

In Monika Held's "*Der Schrecken verliert sich vor Ort*" (2012, *The Horrors loose on the Site* – not yet available in a translation) the protagonist Heiner, a survivor of Auschwitz, lives permanently in a world of brutal double meaning. Wherever he stays, the memories overwhelm him. If he sees smoke from a distance or a ramp somewhere he is immediately beamed back into the architecture of annihilation of the concentration camps.

Already these few examples proof that projected spaces and places can have a strong influence on the overall dynamic of a narrated world. Sometimes memories, longings and dreams become much more powerful than the present course of action. By collecting and analysing examples it becomes apparent that a typology of projected spaces would be a first necessary step to achieve a deeper understanding of that category. Based on a more or less complete typology also a definition could be sharpened. As stated above, the research is only in its very beginnings. Therefore, and for the purpose of this paper, we have to continue with a few remarks and a provisional definition.

A more concise theory of projected spaces needs to deal with the following aspects and questions:

- Triggering devices: How and from where is the spatial projection triggered (via a map, a picture, an object, another place, a person, a word, a text etc.)?
- In what way is the projected space left, what dissolves it? (The opposite of the triggering moment).
- Is the transition from actual setting to projected space a deliberate process or an unconscious one?

- Mode and Function change: Does the projected place become a setting or has it been a setting before?
- Genuine rules of the projected spaces: Do the same rules than in settings apply or does the projected space work according to different rules (Example: Are the common rules of our physical world still valid or can characters move through walls, walk on the ceilings...?)
- Is the projected space (theoretically) accessible or is it a pure invention, an unlocatable place?

Most of these aspects are more subject to what literary scholars call a close reading than opportunities for visualisation. When it comes to visualisation a serious reduction of complexity is needed (see paragraph 3). But taking all these aspects into account, one could come up with a fairly precise working definition:

*“Projected spaces are spatial objects which are not physically accessed by the main characters, but called up in the mode of memories, dreams (including daydreams and nightmares), longings and many others such as hallucinations, drug experiences etc. In short: They are constructed in the minds and imaginations of fictional characters, mostly via a triggering element such as another place, a picture, a scent, an object, a word or sentence etc. They can be seen as genuinely literary concept – some projected spaces feature inherent movie-like qualities, but no other art form offers such a wide range of techniques to create projected spaces than literature.*

*Although they are not settings, sequences of action can also be linked within the frame of projected spaces: Past action, planned action, action that might be desirable and so on. Moreover, during the course of the plot a setting can change its function and become a projected space and vice versa. In some cases projected space and setting are even spatially congruent/interlocking for example when a character visits places of his/her childhood and experiences the past and the present in a double perspective. For all these reasons projected spaces can become a vital part of the plot.”*

## 2.2. Visualising Projected Spaces in Various Medias

There have been ranges of attempts to visualise projected spaces – in art, in the movies and also on maps. For some of the main genres examples are given:

**Illustrations:** In Maurice Sendak’s celebrated children’s book, *“Where the Wild Things are”* (1963), the story of boy is told who is sent to bed without dinner (due to his impossible behaviour). Here, the projected space first grows out of the setting, more precisely: the projected space (children’s

room) transforms (into a forest) and then enlarges towards a projected ocean and an island before the child returns to its room (after many adventures, of course!). Perspective matters: While from the boy's point of view he has been away from home for years and for real, for the adults (which appear only indirectly in the book) and also for the readers, it was only a dream.



**Figure 2a and 2b.** Max's room transforms gradually into a forest. Two illustrations from Maurice Sendak's "Where the Wild Things are" (1963).

**Movies:** A very well known example is Christoph Nolan's blockbuster "*Inception*" (2010), where the protagonists start on a reality level and then move gradually towards various dream levels. On one of them (while sleeping in a warehouse), they walk around in the Haussmannian boulevards of Paris, but by force of imagination of "the architect" in the group, the urban landscape becomes distorted and transformed in a spectacular way. The area where they stand folds up and part of it ends as a ceiling over the heads of the characters.



**Figure 3.** Film Poster of Christopher Nolan's blockbuster "*Inception*" (2010), a movie, in which cityscapes go far beyond the rules of the physical world.

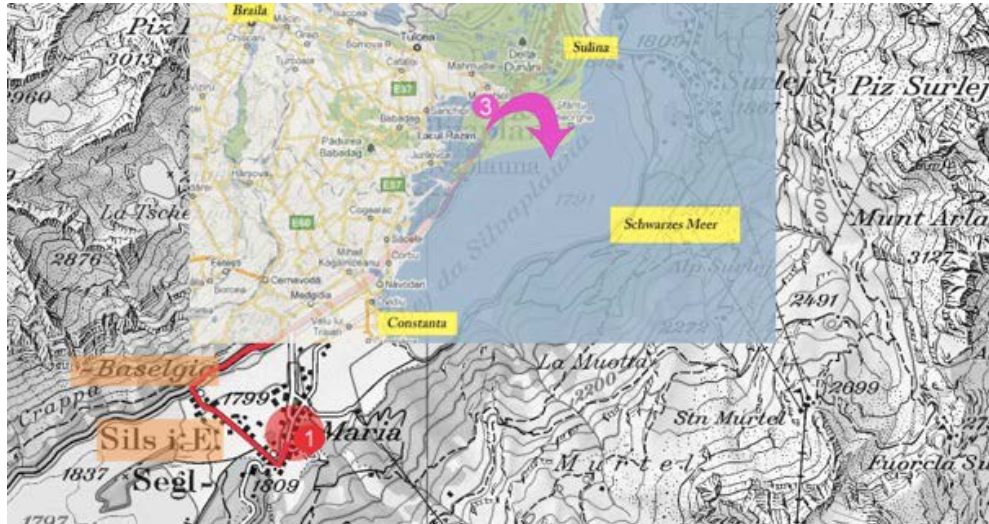
**Pictures (photomontage):** The German photographer Dirk Brömmel recently made architectural photographs from the inside and outside of the world-famous Villa Tugendhat in Brno, Czech Republic, built by Mies van der Rohe in the years 1929 and 1930. The owners left their country as emigrants when the Nazis took over power in 1938. Brömmel alludes to this dark side of the building's history, when over-blending his own views (in colour, with razor-sharp contours) with historical, sometimes blurred pictures from the Tugendhat family's private archives. What appears as artistic results are ghostly scenes with the former inhabitants still somehow living and acting in the contemporary rooms.



**Figure 4.** Dirk Brömmel's photomontage of a historical picture with a contemporary view of Villa Tugendhat (bathroom), art work published in 2010.

**Maps:** Andreas Bäuml (2011) tried to visualise and map projected spaces, triggered via settings in Engadine by a collage/overlay technique. The fictional work he analysed is another very impressive example, Ulrich Bechers "*Murmeltjagd*" (*The Groundhog Hunt*), published in 1969. In this novel the protagonist Trebla, a war veteran and exiled from Austria in 1938, is seeking shelter in a Swiss alpine resort, but is restlessly haunted by his past – the trenches and the horrors he experienced as a young officer in the years 1914-1918. Against the backdrop of the peaceful, sublime alpine scenery of Engadine, he gets virtually beamed back, by overpowering memories, into the theatres of war in Rumania and Italy. What is notable is a kind of "triggering effect" – in some cases Trebla's flashbacks are released by a topographical/visual similarity between his current whereabouts and the faraway places he remembers. Moreover, the picturesque shores of Lake Sils (setting) become congruent with the coastline of the Black Sea around Constanza (projected space). A map of both regions shows an almost seamless overlay. The arrow number 3 on *Figure 5* shows the actual spot where the triggering happens.





**Figure 5.** Andreas Bäumlér's mounting of a topographical base map of Lake Sils with an extract from Google Maps (Black Sea), 2011.

### 3. Cartographic Visualisation of Projected Spaces

#### 3.1. Conditions and Requirements

Literary maps implemented within the “Literary Atlas of Europe” show each individual spatial object atop of simple base maps. Those maps provide information about the function of the place within the fiction, using one of five categories: settings, zones of action, projected spaces, topographical markers or routes of character. Furthermore it shows how precise a place can be located and delimited and whether the author changed it for his story or adopted it as it stands.

The distinction of individual subcategories of projected places (is the character remembering, longing or dreaming of a place) and the linking to a certain setting are additional demands for a more particular visualisation of the fictional space, without having to forgo current map information. Thus, the concrete idea is here to add an additional second information layer, which gives more detailed insights to the construction of the whole fictional space by means of visualisation.

So far, the user was able to retrieve more detailed information for projected places by interactive navigation, such as clicking on certain map object or highlighting of objects with specific properties. An explicit visualisation of this ‘second information layer’ would have the advantage to get a complete and fast overview of the whole situation. And also to be able to derive map

products with extensive information for further distribution when it comes to publications, discussions and presentation of results.

A further general demand within the research area of literary studies is to find a way to standardise criteria and visualisation methods to be able to compare results from different investigations. Ungern-Sternberg (2009) has put it as follows: “It is important and should be possible to develop cartographic standards that ensure the comparability of such undertakings” therefore “we have to find and agree on criteria, scales and methods of how to transform the literary rhetoric of space into a pictorial system“. Behind this background, the literary map visualisations serve as a contribution towards one possible common ‘pictorial language’ for literary geography.

Thereby it is important to take into account, that visualising literary rhetoric requires abstract symbolisation, instead of using banal pictograms or icons because they pretend a displeasing triviality of the textual content. Nevertheless, those visualisations are to be optically and cartographic attractive and they must be transferable to any kind of fictional space and at the same time implementable in a web map service.

What all these examples have in common is the fact, that the approaches are individual ones, dealing with a single, specific case. Quite obviously, matters become even more complicated if one tries to develop a *system of symbols*, which can be used for a range of cases – symbols for projected spaces conceptualised as an adaptable toolbox. This is exactly what the “Literary Atlas of Europe” tries to achieve. It comes along with restrictions (we lose some aspects of projected spaces) but also with a gain (we can start to compare them and to build up networks). The following paragraphs are dedicated to the process of actual mapping projected spaces: What new possibilities, but also what kind of limits are encountered? And what can we learn from those maps?

## **3.2. Inspirations to Visualise Subcategories of Projected Places**

### **3.2.1. 1st Subcategory: Places, the Characters are Remembering**

*Characterisation:* Remembering is a conscious, mental activity of a person to recall thoughts into the mind.

*Versions:* positive or negative memoirs, memories are triggered by something, active thinking

*Various selected icons, symbols, impressions collected in connection with memories:* Brain, candle, elephant, tie a knot in your handkerchief, notepads, memoirs, nerve cells, data stream, thought bubble (cartoon), maelstrom of thoughts, childhood memory



*Inspiration from pictures:*



**Figure 6a and 6b.** Inspirations for places characters are remembering. Left: visualisation of big data, (Source: [www.greenbiz.com](http://www.greenbiz.com)). Right: CD Cover 'Spirals of remembering' (Justus Köhncke)

### 3.2.2. 2nd Subcategory: Places, the Characters are Dreaming of

*Characterisation:* Dreaming is a mainly visual way of processing experiences that occur during sleep or while a person's thoughts are wandering around.

*Versions:* daydream, dream (positive), nightmare (negative)

*Various selected icons, symbols, impressions collected in connection with 'dreams':* castles in the air, soap bubbles, songlines / dreaming tracks, dreamcatcher, ZzzzzZzzz (cartoon impression), 'dreams were shattered', 'a dream is fading'

*Inspiration from pictures:*



**Figure 7a and 7b.** Image inspiration for places the characters are dreaming of. Left: Aboriginal dot painting – dream paths. Right: Picture of a dreamcatcher (Source: [www.fischer-oberschwaben.de](http://www.fischer-oberschwaben.de): Geheimnisse Legenden Mysterien)

### 3.2.3. 3rd Subcategory: Places, the Characters are Longing for

*Characterisation:* Longing describes a deep emotional state of a person for something / to somewhere.

*Reasons:* homesick, long for travel, poorness, dissatisfaction, sadness, love-sickness, loneliness

*Various selected icons, symbols, impressions collected in connection with longing:* horizon, water waves, clouds, swarm of birds, sunrays, autumn, endlessness

*Inspiration from pictures:*



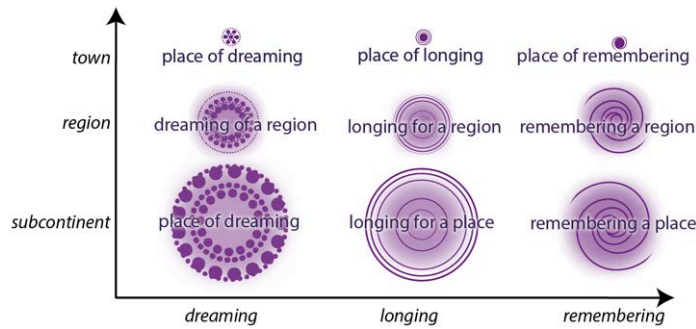
**Figure 8a and 8b.** Image inspirations for places of longing. Left: circular waves in the water (used by various internet presences in connection with therapies). Right: Endless path (picture by A.K. Reuschel).

## 3.3. Suggested Cartographic Symbolisation

### 3.3.1 Design of Graphic Symbols for Subcategories of Projected Places

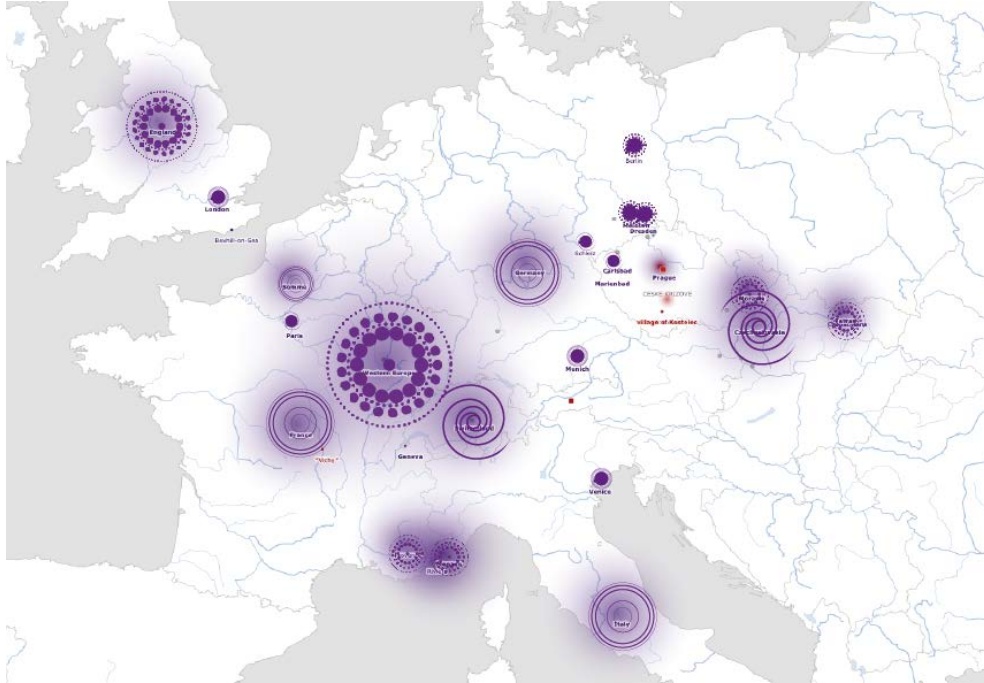
Graphic symbols for subcategories of projected places were devised based on the preliminary inspirational work shortly pictured in *Section 3.2*. As above-mentioned, the aim was to find abstract symbols for a second graphical information layer. Resulting symbolisation is shown in *Figure 9*. One

can see, those are visually coordinated, so that they fit to each other and onto the base circular areas below. To still distinguish between the underlying administrative or topographic unit, all symbols were designed in graded sizes. Thereby, the symbols are more and more simplified towards the smaller size.



**Figure 9.** Symbolisation of different modes of projected places in consideration of the expansion of the place.

The map example (*Figure 10*) shows a first hypothetical symbolisation of projected places subcategories on the example of the textual analysis “*Utz*” (1988, Bruce Chatwin). There, various European cities, regions and even whole countries worldwide are projected by the main character Kaspar Utz mostly triggered from the main setting Prague. The simplest case would be to assign one of the subcategories to projected place, like done in this example, which is not done corresponding to the story, only for experimentation purposes for the visualisation process. In the following, more complex visualisation will be introduced for stories, where places are repeatedly mentioned and changing.

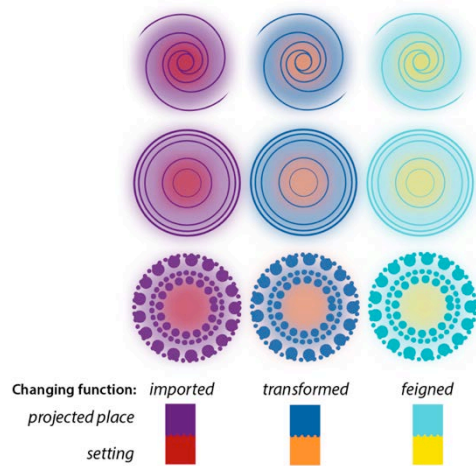


**Figure 10.** Hypothetic differentiation of subcategories of projected places on the examples of “*Utz*” (1988) by Bruce Chatwin.

### 3.3.2 Extending Visualisation for More Complex Fictional Stories

**Changing function:** As mentioned in the beginning, it often happens that projected places become settings in the course of the story or vice versa. In order to distinguish between projected spaces and settings two different colour scales are used. Red – orange – yellow indicates settings, while purple – blue – cyan is used for projected places. The darker the colour, the stronger the correlation to reality, which ranges from realistic descriptions to totally imagined places (compare Reuschel et al. 2011). The change of function is indicated by a combination of two colours, using different colours from both colour scales, one for the centre of the circular area and one for the surrounding circular ring, the like shown in *Figure 11*. If there is more than one change during the story, it is theoretically also possible to add further colour rings by reducing their thickness. In doing so, also a chronological order can be defined and read off, starting from the centre to the outer ring. The symbol of the modus of the projected places, the second information layer, is placed atop this coloured area, also using the colour of the correlation to reality.

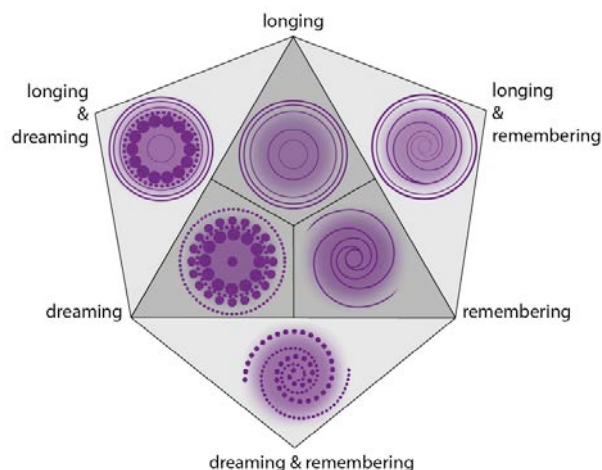




**Figure 11.** Symbolisation of changing function of settings to projected places including the modus of the projected place.

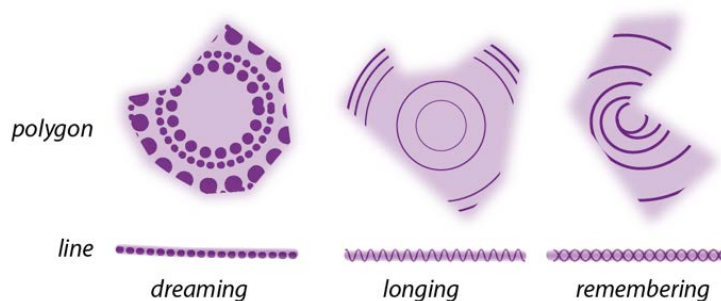
**Changing of subcategories of projected places:** It is sometimes not absolutely clear to assign one of the subcategories of projected places – transitions are often fluid. Furthermore, the place can also occur repeatedly in the course of a story in varying forms. For those cases combined symbols were designed based on the individual symbols like shown in *Figure 12*.

For example a remembered projected place appears later in a dream is symbolised as a dotted spiral. Similarly the changing of projected places of longing to places of dreams or to simple remembered places are combined. Those are additionally framed with circular rings from the 'longing symbol'.



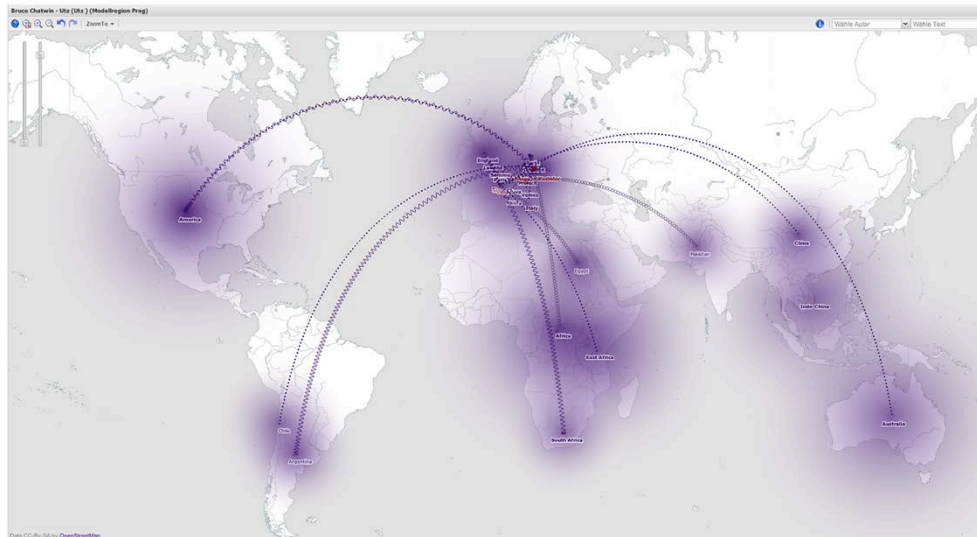
**Figure 12.** Changing of subcategories of projected places in the form of merged symbols.

**Different data types:** On small scale maps point coordinates with a certain extent are used to refer to a fictional place. On large scale maps, like for example within the model regions, the depiction of a place can be more precise using polygons to demarcate a suburb or lines to highlight a certain section of a road. That is why subcategory symbolisation also needs to be applied to any kind of data types. This could be done like shown in *Figure 13*. There, the polygon extend is used as masking area for the original symbol which was designed for the point area. In that way the polygon gets a texture, which indicates the subcategory. For lines, three different line types are used: dotted lines for places of dreams, waving line – like the profile of the circular spreading ‘waves’ – for places of longing and a twisted line for places of remembering.

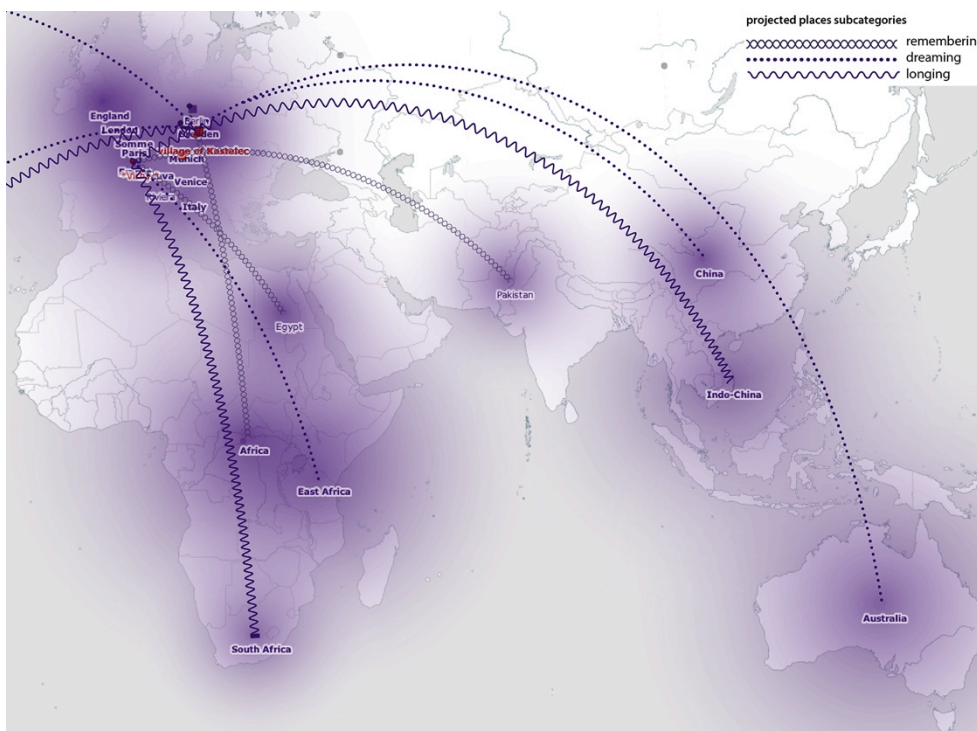


**Figure 13.** Symbolisation applied to different data types.

**Triggering:** In most cases, projected places are somehow triggered from a setting. It also happens that a projected place triggers another projected place, like a chain. To visualise the resulting big network – how everything is connected – the line of two connecting points are calculated as great circles, the shortest connection of two points on a globe. Those lines appear as huge arches when they are reprojected into the ‘popular mercator Google web map projection’, which is used for the Literary Atlas application. Again, the fictional analysis of Chatwin’s “*Utz*” is used as visualisation trial in *Figure 14*. A further idea is to assign the subcategory line symbols of the triggering moment onto the arches. That way, both information, the original place where the projected place was triggered and in what kind of mood or condition this happened, would be transmitted over this visualisation (compare *Figure 15*).



**Figure 14.** Triggering of projected places visualised through calculation of great circles.



**Figure 15.** Classified triggering lines.



## 4. Conclusion and Outlook

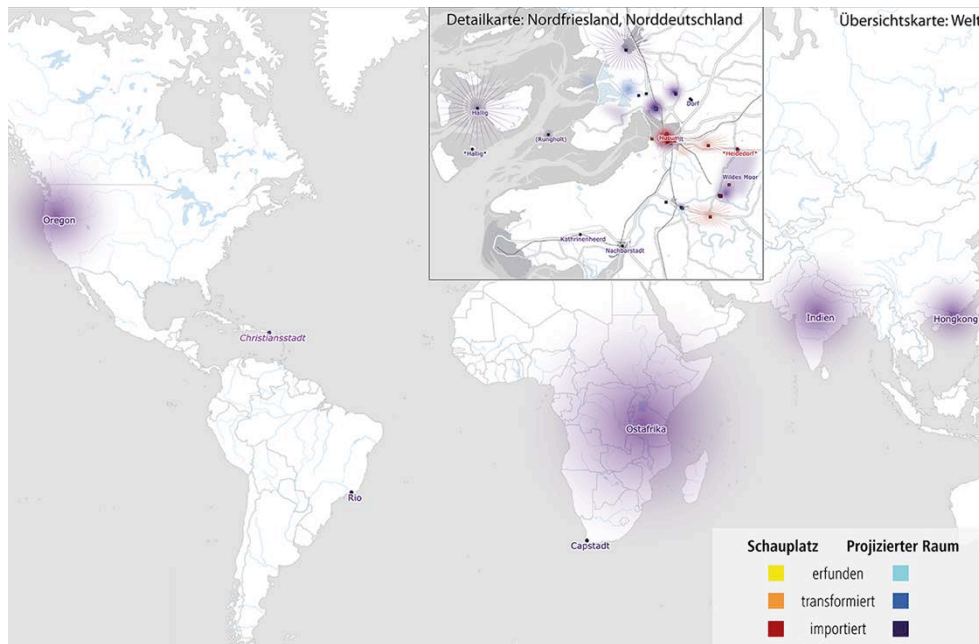
With the extended symbolisation toolbox for projected places, much more details about the dimensions of projected places within an individual text can be read directly off the map. This is a practical advantage from the cartographic point of view and a great help to the users, too. Out of the aspects listed in 2.1 the “Literary Atlas of Europe” has been dealing so far with the following: Subcategories of projected spaces (symbols for dreams, memories, longings); Function change (a setting becomes a projected space and vice versa); triggering networks; and cases, in which projected spaces undergo transformations (i. e. divergence of physical rules).

In terms of analysis one can detect new patterns, which were – in some cases – invisible (or at least not registered) before. Regions on the map are divided into certain force fields: zones with detailed descriptions versus zones never mentioned in the text; or zones the characters can reach and act versus zones that remain unreachable. It further shows the researchers how much the author just adopts, unmodified and what places he transformed or invented. When various maps of the same region or of the same author or from different periods are compared side by side, maybe a trend can be derived from those maps.

When it comes to a future research agenda, there is a dream and there is a selection of manageable research task. The dream might be a map of projected spaces in Europe (and beyond), for example during WWII. What is the spread of projected places? Questions such as “Was there a trend of escapism, in literature, or did in fact the places and spaces destroyed, ruined in the war became projected places (in their former state, in a future time)? Do differences between the involved countries become apparent?” could be answered. Literary cartography could hence even assist a history of mentalities.

More realistic seems an outlook towards smaller extracts, an analysis of a network of projected places starting in one city or region. For Lake Lucerne, one of the model regions within our “Literary Atlas of Europe”, the findings show that projected places work in both ways: On the one hand, places such as Denmark or Lithuania are called up and blended into the alpine, sublime landscape (by authors Ola Hansson and Jonas Biliunas). On the other hand, typical landscape attractions (Schöllenen Gorge, Lake of Uri), are triggered from Russia (in Fjodor Dostojewski’s *Demons*, 1872) or from a ship on the River Rhine (in Mary Shelley’s *Frankenstein or The Modern Prometheus*, 1818). Also an analysis of several works of the same author seems promising. When mapping the settings and projected spaces in 34 texts of Theodor Storm, suddenly a world map appears, including projected spaces in such

exotic areas and countries as Hongkong, India, Capetown and the Virgin Islands. This global dimension is somehow surprising, since the common view of Storm is that of a realistic author, restricted more or less to a small region in Northern Germany, namely the surroundings and the coastline of Husum, where Storm also lived and worked during most parts of his life.



**Figure 16.** A World Map of fictional works written by Theodor Storm (most of the novellas have their main setting in and around the small town of Husum in Northern Frisia, but some include projected spaces in regions far away).

Literary-geographical maps support and underline either facts that could be retrieved from readings. In this case they function as an illustration. More exciting are of course those maps on which new patterns appear (see above). But in either case it is crucial to accept that in literary cartography the maps never provide final answers. They rather have to be seen as generators of ideas, as powerful impulses. Based on the maps literary scholars are able to ask new questions and eventually find answers.

Since, as stated above, the field is a dynamic, growing one, a series of projects follow similar or related goals as the “Literary Atlas of Europe”. Among them are projects such as “Viennavigator” (<http://viennavigator.metaspots.net>), “Mapping St Petersburg”

(<http://www.mappingpetersburg.org>), “Mapping the Lakes” (<http://www.lancs.ac.uk/mappingthelakes/>) or the “Cultural Atlas of Australia” (<http://australian-cultural-atlas.info/CAA/>). A majority of these and other projects in the field work on an impressively high theoretical level, but the cartographic realisation is rather poor.

The most important prerequisite to be able to visually compare and link such projects, their collected data and their results is to use one ‘pictorial language’ by using the same typology and symbology. Viewed in this light, the solutions presented in that paper could be one possible step further towards a common visual language for literary cartography.

## References

- Bär, HR and Hurni, L (2011) *Improved Density Estimation for the Visualisation of Literary Spaces* In: *The Cartographic Journal, Special Issue Cartographies of Fictional Worlds*, 48.4, pp. 309-316.
- Bäumler, A (2011) *Das Engadin als literarisierte Landschaft. Literaturgeographische Untersuchungen zum Verhältnis von Text und Raum* (Master thesis, University of Basel, unpublished typoskript)
- Piatti, B (2012) *Vom Text zur Karte. Literaturkartographie als Ideengenerator*. In: *Kartographisches Denken*, ed. by Christian Reder. Vienna: Springer, pp. 269-279.
- Reuschel AK and Hurni L (2011) *Mapping Literature: Visualisation of Spatial Uncertainty in Fiction*. In: *The Cartographic Journal*, 48.4, pp. 79-94.
- Reuschel AK, Piatti B and Hurni L (2013) *Modelling Uncertain Geodata for the Literary Atlas of Europe*. In: *Lecture Notes in Geoinformation and Cartography, Understanding Different Geographies*, Karel Kriz et al. (eds.), Springer, pp.135-157.
- von Ungern-Sternberg A (2009) *Dots, Lines, Areas and Words. Mapping Literature and Narration (With some Remarks on Kate Chopin's "The Awakening")*. In: Cartwright W., Gartner G, Lehn A. (eds.), *Cartography and Art, Lecture Notes in Geoinformation and Cartography*, Heidelberg 2009, S. 229-252.